REMARKS

The Office is thanked for the careful consideration of pending claims 1, 2, 4-13, 15 and 20.

Claims 1, 2, 4-13, 15 and 20 stand rejected under 35 U.S.C. § 102(e) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Chen et al. (USPN 6,261,679).

Applicants traverse this rejection.

First, applicants will establish that the anticipation rejection is improperly maintained.

Then, applicants will demonstrate why the presently claimed invention is not rendered obvious by the cited art.

NO ANTICIPATION

The Examiner has stated his position to be that "since Chen teaches an absorbent article of the same composition, ... suitable absorbent properties ... are reasonably considered to be either anticipated by Chen, or are obviously provided by practicing the invention of the prior art."

This is improperly maintained.

The Examiner relies on MPEP § 2112.01. The Examiner is requested to review MPEP § 2112.01 in detail. Specifically, MPEP § 2112.01 recites that:

> When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not. ... Therefore, the *prima facie* case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product. *In re Best*, 562 F.2d at 1255, 195 USPQ at 433.

Applicants respectfully assert that the anticipation rejection is improperly maintained because applicants have shown (in the REPLY of August 8, 2006) that the prior art does not necessarily possess the characteristics of the claimed product.

Applicants respectfully assert that the Examiner has not given proper weight to MPEP § 2112.01. Applicants have shown that the Chen products to not necessarily possess the presently claimed characteristics. First, applicants assert that the Examiner's allegation of "essentially the same process" being taught in Chen is contrived and improper (full details *infra*, see also REPLY of August 8, 2006). Second, applicants assert that even following the "closest" example (Example 3) in

Chen does not provide a material that has all the presently claimed characteristics (full details *infra*, see also REPLY of August 8, 2006).

Accordingly, a *prima facie* case of anticipation or obviousness has been rebutted. The rejection must be removed.

1) Not "essentially the same process"

The Examiner's allegation of "essentially the same process" being taught in Chen is contrived and improper. Essentially the same process is not taught and, accordingly, the same (or essentially the same) absorbent structure does not result from Chen. Thus, the Chen products do not necessarily possess the presently claimed characteristics.

Applicants highlight a variety of reasons why asserting the "essentially the same process" is taught by Chen is contrived and improper.

First, it is evident that the Examiner has simply mixed and matched steps from throughout the specification of Chen.

Step a) is taken from columns 11 and 21-22,
Step b) is taken from column 16,
Step c) is taken from columns 29-31,
Step d) is taken from column 26, and
Step e) is taken from columns 17-18.

The Office has jumped all over the specification to "find" the alleged teaching.

The Examiner has provided no guidance, absent improper hindsight reconstruction, why one skilled in the art would mix and match the steps as suggested by the Examiner.

Second, the mixed and matched steps are very generic and provide no teachings of the precise: a) manner; b) timing; c) amounts; d) temperatures; e) concentrations; etc.

Thus, there are ***too many unknowns and variables*** which must be adjusted/modified without guidance for there to be a reasonable conclusion of "essentially the same process."

Accordingly, because there are too many unknowns and variables which must be adjusted/modified without guidance the Chen products do not necessarily possess the presently claimed characteristics.

2) Following the "closest" Example (Example 3) in Chen does not provide a material that has all the presently claimed characteristics

In using Example 3, applicants are not asserting that Chen, as a whole, is limited to the teachings of Example 3.

However, the teachings of Chen relied upon by the Examiner do not teach anything but mixed and matched generic steps. In order to rely on a process in Chen, without wild speculation as to the manner, timing, amounts, temperatures, concentrations and so forth of conducting the steps, applicants looked to the Examples of Chen.

Accordingly, although applicants maintain that Chen does not teach or suggest the present invention, the teachings of Example 3 of Chen were followed because they are the teachings in Chen that are closest to teaching allegedly essentially the same process as the presently claimed invention. Example 3 was the most reasonable selection because of the use of CMC, an anionic polymer, and because of teachings of freeze drying and crosslinking. But, even following the closest teaching in Chen, each of the resultant products produced still did not possess **all** the presently claimed characteristics.

Thus, following the "closest" example of Chen, Chen does not teach a product that possesses the presently claimed characteristics.

Accordingly, when relying on Chen, one skilled in the art would not be taught a product that necessarily possesses the presently claimed characteristics.

Conclusion

First, applicants have shown that the Examiner's allegation of "essentially the same process" being taught in Chen is contrived and improper.

Second, applicants have shown that even following the "closest" Example (Example 3) in Chen does not provide a material that has all the presently claimed characteristics.

The Office must concede that one skilled in the art, reading Chen, will not arrive at a liquid absorbent material that necessarily possesses the presently claimed characteristics.

Accordingly, a *prima facie* case of anticipation or obviousness has been rebutted and must be removed.

NONOBVIOUSNESS

While the Examiner's *prima facie* case of anticipation or obviousness has been rebutted, the Examiner has interjected further assertions regarding obviousness which applicants now address.

The Examiner has asserted that "There is no reason to believe that one skilled in the art would not be able to optimize a product made by the same process, and for the same end use."

Further, the Examiner has asserted that "Since Chen's absorbent article anticipates all the structure and composition limitations as claimed, in particular, Chen teaches progressive smaller pore sizes as claimed, Chen's article is inherently capable of absorbing both the capillary liquid and gel liquid." Office Action of September 18, 2006, page 5.

Applicants respectfully traverse these assertions and respectfully requested that they be withdrawn.

Difficult and Not Obvious to Optimize

The Examiner has asserted that "There is no reason to believe that one skilled in the art would not be able to optimize a product made by the same process, and for the same end use."

However, the claimed composition requires optimization of three separate properties, absorption rate, liquid distribution capacity, and liquid storage capacity, while producing a composition with the ability to store gel liquid.

As discussed above, to even arrive at the allegation of essentially the same process, the Examiner has simply mixed and matched steps from throughout the specification of Chen.

Further, the mixed and matched steps are very generic and provide no teachings of the precise: a) manner; b) timing; c) amounts; d) temperatures; e) concentrations; etc.

Thus, one skilled in the art is confronted by these ***many unknowns and variables*** which must be adjusted/modified without guidance.

Thus, to arrive at the presently claimed invention, one reading Chen would have had to manipulate a complex process with multiple parameters in order to

optimize at least three properties, absorption rate, liquid distribution capacity, and liquid storage capacity, while producing a composition with the ability to store gel liquid.

However, the Examiner has not shown or suggested where there is any alleged "direction" provided in Chen to arrive at the claimed invention. Chen does not discuss or suggest a manner in which to optimize the multiple variables.

It would be difficult and not obvious to optimize the parameters as suggested by the Examiner. The parameters have a conflicting relationship.

The Examiner's optimization conclusion was made based on the assumption that the absorption properties of the material are traditional result-effective variables, wherein variations in process parameters affects the variables in the same manner. However, in the technology of the present invention, the properties are not traditional result-effective variables because the process parameters have conflicting and therefore competing impacts on three results, each of which must be considered when making the absorbent material. Such conflicting and competing impacts are demonstrated in Table 1 and Examples 1-3 of the present Specification. See Specification, page 14. Therefore, applicants do not rely on a traditional result-effective variable to demonstrate patentability, but instead show that, in the present invention, the properties are not traditional result-effective variables.

Specifically, prior to this invention, it was not known whether there existed a range in which the absorption rate, liquid distribution capacity and liquid storage capacity were above some minimum acceptable level because of the opposite effects manipulating the process parameters of the foam material has on absorption rate, liquid distribution capacity and liquid storage capacity. As showing in Table 1 and Examples 1-3 of the present Specification, variations in the process parameters caused the absorption rate and the liquid distribution capacity to improve while the liquid storage capacity was worsened.

Thus, optimization of absorption rate, liquid distribution capacity, and liquid storage capacity is not a simple linear optimization but requires a ***careful balancing*** between competing factors while also ensuring that a composition with the ability to store gel liquid is produced. With the lack of direction found in Chen, this careful balancing is clearly not within the skill of one of ordinary skill in the art.

Moreover, not only is this careful balancing for absorption rate, liquid distribution capacity, and liquid storage capacity not taught or suggested, but the process parameters also have to be manipulated to produce a composition with the ability to store gel liquid.

That is, one skilled in the art reading Chen would not have found any discussion or teaching on how to manipulate process parameters to adjust the pore size to get gel liquid storage capabilities while also optimizing three separate properties.

Accordingly, the presently claimed absorbent materials are not obtained from an obvious optimization of teachings of Chen.

Gel Liquid is Not Inherent

In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art. *See Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990).

Here the Examiner has shown no reasonable support in Chen for the determination that adjusting the pore size to get gel liquid storage capabilities (while optimizing absorption rate, liquid distribution capacity, and liquid storage capacity) necessarily flow from the teaching of Chen. Yet, this is required to show inherency.

Gel liquid is a liquid that is in a different form of storage from capillary liquid. Gel liquid is firmly bound in cells by the swelling cell walls. *See Specification, page 2, lines 29-37*. This liquid is physically distinct from the loosely bound capillary liquid. The physical difference is demonstrated when measuring liquid storage capacity by centrifuge retention capacity, in which saturated foam is centrifuged to remove loosely bound capillary liquid. After centrifuging, primarily gel liquid remains.

This demonstrates that there is a physical, measurable difference between gel liquid and capillary liquid. The difference between "gel liquid" and "capillary liquid" is not, therefore, merely semantics.

The resulting ability to store gel liquid and have a sufficient absorption rate, liquid distribution capacity and liquid storage capacity is not inherent in the disclosure of Chen.

The fact that a certain result or characteristic may occur or be present in Chen is not sufficient to establish inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534 (Fed. Cir. 1993). That is, "[t]o establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.'" *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999) (citations omitted).

As stated above, the claimed composition requires optimization of three separate properties, absorption rate, liquid distribution capacity, and liquid storage capacity, while producing a composition with the ability to store gel liquid.

One skilled in the art reading Chen would not have found any discussion or teaching on how to manipulate process parameters to adjust the pore size to get gel liquid storage capabilities while also optimizing three separate properties.

In fact, Chen is focused on a primarily fibrous absorbent structure. Column 1, lines 63-65. The resulting large fibrous structure pore sizes (500 – 7,000 μm) offer relatively little capillary pressure. Column 42, lines 12-16. To remedy the low capillary pressure of the fibrous structure, Chen discloses the use of open cell foam binder in a manner to also increase capillary pressure, thereby increasing capillary absorption. Thus, Chen is focused on using foamable binder for the purpose of simply storing capillary liquid. Chen does not suggest any other absorbent function for the open cell foam. Therefore, based on the disclosure of Chen, one skilled in the art would not be motivated to incorporate gel liquid storage, or the accompanying pore size between 0 and 3 μm, in an absorbent material.

The Examiner has shown no reasonable support in Chen for the determination that adjusting the pore size to get gel liquid storage capabilities while optimizing absorption rate, liquid distribution capacity, and liquid storage capacity necessarily flow from the teaching of Chen. Yet, this is required to show inherency. *See Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) ("In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.")

Thus, gel liquid storage is not inherent in Chen.

Nonobvious Conclusion

Section 103 requires assessment of the invention as a whole. *Princeton Biochemicals, Inc. v. Beckman Coutler, Inc.*, 411 F.3d 1332, 1337 (Fed. Cir. 2005).

> This 'as a whole' assessment of the invention requires a showing that an artisan of ordinary skill in the art at the time of invention, ***confronted by the same problems as the inventor*** and with no knowledge of the claimed invention, would have selected the various elements from the prior art and combined them in the claimed manner.

Id (emphasis added).

That is, the problem confronting the Applicants was to optimization of three separate properties, absorption rate, liquid distribution capacity, and liquid storage capacity, while producing a composition with the ability to store gel liquid.

The Examiner is ignoring the problems confronting one skilled in the art whom, with no knowledge of the claimed invention, would have dismissed the selected various teachings of Chen as trending towards remedying the low capillary pressure of the fibrous structure, by using an open cell foam binder in a manner to increase capillary pressure, thereby increasing capillary absorption. There is no motivation to rely on the teachings of Chen to arrive at the presently claimed invention, especially considering that optimization of absorption rate, liquid distribution capacity, and liquid storage capacity is not a simple linear optimization but requires a careful balancing between competing factors. The Examiner is not properly considering the invention as a whole, as analysis under section 103 requires.

Thus, the Examiner has improperly applied a hindsight reconstruction to arrive at the presently claimed invention. The Examiner's improper reconstruction alleges that the gel liquid absorption is intrinsic to Chen and that absorption rate, liquid distribution capacity, and liquid storage capacity can simply be optimized by one skilled in the art. However, this ignores the fact that the gel liquid is not intrinsic to Chen and that that optimization of absorption rate, liquid distribution capacity, and liquid storage capacity is not a simple linear optimization but requires a careful balancing between competing factors.

According to the Federal Circuit, "a retrospective view of inherency is not a

substitute for some teaching or suggestion which supports the selection and use of the various elements in the particular claimed combination." *In re Newell*, 13 USPQ2d 148, 1250 (Fed. Cir. 1989). The retrospective view of the inherency/intrinsic nature is an inadequate ground upon which to reject the claimed invention.

Applicants' claimed methods do *not* flow logically from the teachings of the Chen and Appellants' invention as a whole is *not* obvious in light of Chen. Applicants perceive no motivation in Chen to arrive at gel liquid absorption Applicants also perceive no basis for a reasonable expectation of success if isolated aspects of Chen were used in the manner suggested by the Examiner without the benefit of impermissible hindsight afforded by the teachings of Applicants' disclosure.

Accordingly, the Examiner has not presented a proper obviousness rejection.

Accordingly, one skilled in the art would *not* have been motivated to arrive at the presently claimed invention by modifying Chen.

Accordingly, claims 1-2, 4-13, 15 and 20 are, thus, not anticipated or rendered obvious by Chen.

CONCLUSION

Applicants believe all matters raised in the above referenced Office Action have been responded to and that the application is now in condition for allowance.

Should the Office have any questions regarding this Amendment, or regarding the application in general, the Office is invited to contact the undersigned at the number listed below in order to expedite prosecution of the application.

Respectfully submitted,
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